

Appln. No. 09/755,497
Amtd. dated: May 6, 2005
Reply to Final Office Action dated February 09, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-7 (Canceled)

8. (Currently amended) The method of claim 7, In a base station wideband transceiver capable of operating in a wireless cellular communications system that communicates with mobile subscribers, a method for equalization in transmit and receive levels, comprising the steps of:

assigning a plurality of transmit and receive carrier frequencies to the base station wideband transceiver;

flattening a spectral response of said base station transceiver across a range of frequencies including the plurality of transmit and receive carrier frequencies using software amplitude pre-distortion;

wherein the method further comprises the step of making narrowband IF channel measurements using an automated broadband radio frequency transceiver test (ABRFTT) to determine a set of coefficients for each narrowband IF channel;

wherein the ABRFTT further comprises the step of making wideband RF channel measurements that step through the wideband bandwidth to determine a set of coefficients for the wideband RF channel;

wherein the ABRFTT creates 25 narrowband coefficients for a 5 MHz IF bandwidth and 300 wideband coefficients for a 60 MHz RF bandwidth having 200 kHz channels.

Claims 9 – 18 (Canceled)

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19. (Previously presented) A method for equalizing a spectral response of a wireless cellular base station transceiver configurable for operating within any one of a plurality of relatively narrow segments of a wireless communications band, comprising the steps of:

storing a generic set of coefficients representative of amplitude distortions occurring as a result of signal conversions between analog and digital formats in said base station transceiver;

storing at least one set of transceiver specific coefficients representative of amplitude distortions associated with a specific broadband base station RF transceiver; and

equalizing an amplitude response of said specific broadband base station RF transceiver at a plurality of transmit and receive carrier frequencies within a selected one of said segments using said generic set of coefficients and said transceiver specific coefficients to perform software amplitude pre-distortion.

20. (Previously presented) The method according to claim 19 further comprising the step of selecting said at least one set of transceiver specific coefficients to include a first set of transceiver specific coefficients representative of amplitude distortions exclusive to narrowband processing within said specific broadband base station transceiver.

21. (Previously presented) The method according to claim 20 further comprising the step of selecting said transceiver specific coefficients to further include at least a second set of transceiver specific coefficients representative of amplitude distortions associated with wideband signal processing within said specific broadband base station transceiver.

22. (Previously presented) The method according to claim 21 further comprising the step of performing said software amplitude pre-distortion concurrently using said first and second sets of transceiver specific coefficients.

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23. (Previously presented) A broadband wireless cellular base station transceiver configurable for operating within any one of a plurality of relatively narrow segments of a wireless communications band, comprising:

a receiver comprising at least one device for converting between an analog and a digital format;

a memory device containing a generic set of coefficients representative of amplitude distortions occurring as a result of signal conversions between analog and digital formats in said base station transceiver;

a memory device containing at least one set of transceiver specific coefficients representative of amplitude distortions associated with said specific base station RF transceiver; and

at least one digital signal processor programmed to equalize an amplitude response of said specific broadband base station RF transceiver at a plurality of transmit and receive carrier frequencies within a selected one of said segments using said generic set of coefficients and said transceiver specific coefficients to perform software amplitude pre-distortion.

24. (Previously presented) The broadband wireless cellular base station transceiver according to claim 23 wherein said at least one set of transceiver specific coefficients includes a first set of transceiver specific coefficients representative of amplitude distortions exclusive to narrowband processing within said specific broadband base station RF transceiver.

25. (Previously presented) The broadband wireless cellular base station transceiver according to claim 24 wherein said transceiver specific coefficients further include at least a second set of transceiver specific coefficients representative of amplitude distortions associated with wideband signal processing within said specific broadband base station RF transceiver.

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26. (Previously presented) The broadband wireless cellular base station transceiver according to claim 25 wherein said digital signal processor concurrently uses said first and second sets of transceiver specific coefficients to perform said software amplitude predistortion.

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